

Environmental Excellence

VOLUME 5; NO. 2: **FALL 2004**

Springfield-Greene County Choose Environmental Excellence **Steering Committee**

Barbara Lucks City of Springfield Solid Waste Management Division

Kevin Gipson Springfield-Greene County Health Dept.

Marie Steinwachs University of Missouri Outreach and Extension

Ryan Mooney Springfield Area Chamber of Commerce

Terry Whaley Ozark Greenways, Inc.

The Discovery Center

Chuck Kroeger Missouri Dept. of Natural Resources

Dave Fraley City Utilities

Dave Coonrod Greene County Presiding Commissioner

Loring Bullard Watershed Committee of the Ozarks

Cindy Garner Missouri Dept. of Conservation

Francis Skalicky Missouri Dept. of Conservation

DeDe Vest Natural Resources Conservation Service

Jon Schimpf Dayco

Holly Neill James River Basin Partnership

Becky Fay University of Missouri Outreach and Extension

Tim Smith Greene County Resource Management

Randy Lyman City of Springfield Sanitary Services

Bob Hamilton Solid Waste Management District "O"

Karl Barke Springfield-Greene County Health Dept. - Air Quality Control

Ann Hall **Gary Deaver** Rená Bass Lynn Feagan

CHOOSE ENVIRONMENTAL EXCELLENCE AWARDS PRESENTED

The annual Springfield/Greene County Choose Environmental Excellence awards were presented at the awards luncheon during Earth Day acitivies in April 2004.

Ozark Greenways recognized John Haik, owner of Ozark Adventures. Ozark Adventures partners with Ozark Greenways on its annual Adventure Race fundraiser and this year was one of the top sponsors.

The Watershed Committee of the Ozarks recognized Mike Penprase and the News-Leader. The News-Leader has shown a strong commitment to raising public awareness of environmental issues, in general, with a special focus on water quality. Mike Penprase is an environmental reporter with the News-Leader and takes the time and effort to understand sometimes very complicated issues, always accurately reporting both sides of the story - an excellent example of a professional journalist.

Solid Waste Management District "O" Advisorv Board presented Environmental Service aware to Ken Reiss, Executive Director of the Computer Recycling Center. Starting from scratch, within two years Ken has built an e-waste recycling business that handles more volume than any other in the state.

Barbara Lucks recognized Dr. Melida Gutierrez, an associate professor at SMSU specializing in Physical Geology, Earth Science, and Geohydrology. Dr. Gutierrez is active in environmental education activities and is committed to her ongoing research work in stream water quality, groundwater contamination, and soil salinity. instills in her students, tomorrow's teachers, a respect and curiosity for the natural environment.

The Springfield Area Chamber of Commerce recognized NorthStar Battery Company. Northstar was honored for its environmental stewardship, specifically in its protection of air and water quality in the region.

ZOO NAMES 2004 EARTH HEROES

Dickerson Park Zoo presented 2004 Earth Hero Awards to the Greater Ozarks Audubon Society and a long-time society member, Ruby Ball.

Ball, a 10-year Great Ozarks Audubon Society member, has donated thousands of hours to conservation projects in southwest Missouri. Her volunteer efforts including working on the Audubon Society's South Creek and Wah' Kon-Tah Prairie restoration projects, leading birding field trips and monitoring the society's bluebird trails.

The Great Ozarks Audubon Society is the first organization to be named an Earth Hero. Formed in the late 1970s, GOAS helps protect and restore southwest Missouri's natural surroundings, including:

- preserving a one-mile section of South Creek along Sunset Street;
- restoring Wah' Kon-Tah Prairie near El Dorado Springs through seed collection, fence removal and brush clearing:
- conducting bird surveys at Valley Water Mill, Bull Shoals Field Station, Close Park. Wah' Kon-Tah Prairie and Wilson's Creek National Battlefield;
- distributing Audubon Adventures, a conservation-education magazine, to area elementary classrooms; and
- sponsoring two bluebird trails that fledged more than 2,500 young birds over 20 years.

Springfield-Greene County Choose Environmental Excellence 417-864-2006



WATERSHED LEARNING CENTER UNDERWAY



The Watershed Committee of the Ozarks is well along with its plans to develop a Watershed Learning Center at the Valley Water Mill site in north Springfield. This property, owned by City Utilities of Springfield,

contains a variety of unique features such as sinkholes, springs, streams, glades, wetlands and a seventeen-acre lake. Here, the Watershed Committee intends to build a learning center that will demonstrate a commitment to watershed friendly design and sustainable development. A main feature of the center will be a LEED (Leadership in Energy and Environmental Design) "green" building, with its use of passive solar, native and recycled materials, wastewater recycling systems and other water and energy efficiency demonstrations. Outside will be equally interesting demonstrations of better runoff management techniques, watershed-wise native landscaping and a restored wetland.

The two and one-half miles of trails at the site will connect the four "learning stations" (outdoor classroom structures at the lakeside, wetland, spring and streamside) and "field stops" (smaller, themed learning areas). The main building will house meeting and workshop spaces, water quality laboratories and distance learning facilities.

It may seem mundane to note that the first actual structure on the site is a storage shed. But even this small structure illustrates a measure of demonstration. The shed, constructed free of charge by an Ozarks Technical Community College class taught by David Lowry, features "Eco-Shake" roof shingles made from recycled plastic, as well as other environmentally sustainable materials. This, as every other aspect of planning and development of the Center, is intended to demonstrate to the public more thoughtful ways of living and working on our sensitive karst watersheds of southern Missouri.

For more information about this exciting community project, call the Watershed Committee office at 866-1127 or visit their website:

www.watershedcommittee.org

DISCOVERY CENTER OF SPRINGFIELD GOES GREEN

Discovery Center of Springfield announced that its new addition will be a LEED-Certified building. Deconstruction on the far west structure began August 2nd. Plans for the expansion are to have three floors for exhibit space, classrooms, programs and Immersion Cinema. The building will qualify for LEED (Leadership in Energy and Environmental

Design) certification, which is provided through the U.S. Green Building Council.

By using high performance and sustainable building standards on the Center's 29,000 square foot renovated and expanded structure, the atmosphere will not only be educational on the inside with exhibits, but the creation of the structure itself will be an exhibit.

Discovery Center of Springfield has set Sustainable Design goals as well as Energy Education Goals. The main goal for sustainable design is to reduce, reuse and recycle resources and materials whereever possible during construction and ultimately on a day-to-day operational basis and to implement features and practices to promote a healthy working environment.

Building "Green" fits right into the Discovery Center of Springfield's mission. Energy Education goals will be filled by educating the public with new exhibits in the expansion area, and also by demonstrating the high performance of a "green" facility and how it functions.

The deconstruction process will take approximately six weeks due to the sorting and recycling of the majority of building materials. This includes the windows, roof, walls, bricks, wood and steel; seventy-five percent of the materials can be recycled. DeWitt & Associates Inc. of Springfield is the general contractor and will be coordinating the efforts.

While the deconstruction process is happening, H-Design group is working on architecture plans for new construction. They are coordinating with many individuals to make sure environmental "Green" design elements are added from LEED Certification and that it fits the mission of the Discovery Center.

Discovery Center of Springfield is an interactive, handson museum committed to inspiring people of all ages with a life-long love of learning and an appreciation for the world and our place in it. As a non-profit 501(3)c, Discovery Center provides an educational resource for parents and teachers while being a visitor attraction for the southwest region of Missouri. Discovery Center reaches tens of thousands of children through educational programs, outreach, video conferencing and field trips while maintaining a commitment to accessibility by offering scholarships and free days. For more information on the Discovery Center check-out the web site at www.discoverycenter.org or call Emily Fox at 417-862-9910, ext. 700.



VOLUNTEER?

Friends of the Zoo is recruiting volunteers for the Zoo Ambassador and Docent programs. Please request a brochure and application by calling the zoo office, 417-833-1570, or emailing info@dickersonparkzoo.org.

All prospective volunteers will complete an application and interview process. Training for those accepted into the programs will be during winter 2005 in preparation for spring activities.

STORMWATER RUNOFF VIDEO AIRS ON WEATHER CHANNEL

The Environmental Protection Agency aired a half-hour television special showing the connection between weather and watersheds and the importance of watershed protection on The Weather Channel. "After the Storm" explores how polluted runoff threatens the nation's waters. There is also a companion brochure that can be downloaded from EPA's Web site for free.

To learn more go to www.epa.gov/weatherchannel/

VHS copies (available free for educational purposes) are available at the same web site.

STORM WATER POLLUTION REPORTING

To report spills, dumping or discharges of pollutants to the storm water system or streams, or other water quality problems in Springfield, call the Storm Water Services Division at 864-1901 or submit a Citizen Service Request at www.springfieldmogov.org/webapps/serv_reg/

What to watch for:

- Dumping of motor oil or other chemicals in streets, ditches or storm drains
- ◆ Discharges of commercially generated wash waters (e.g. from washing of trucks, equipment, structures, or from services such as carpet cleaning) to the street and/or storm drains
- ◆ Improper outdoor storage of chemicals and other materials that can pollute storm water runoff
- Disposal of grass clippings, leaves, or other yard waste in streets or ditches
- ◆ Sediment discharging from construction sites, or other erosion problems (for construction site erosion contract the local MDNR office at 891-4300; for waterways erosion, contact Springfield Public Works Waterways Maintenance at 864-1470.)

STORM WATER WEB PAGE

Visit the City of Springfield Storm Water Services Division web page to learn about what the Division does, the basics of storm water, and the requirements of Springfield's NPDES storm water permit. View the interactive storm water map, meet the Division staff, and download a variety of storm water documents.

www.sprinfieldmogov.org/stormwater

WATER QUALITY VIDEOS

The following videos are available for checkout from the City's Storm Water Services Division for use in classrooms or by other groups interested in water quality issues. Contact Carrie Lamb at 864-1996.

"After the Storm" - Co-produced by EPA and The Weather Channel, this 22-minute video uses three case studies to focus on the issue of storm water pollution and the interconnections between water supply, water quality and the economic vitality and quality of life in communities.

"Keeping Our Waters Clean" - This video provides an easy-to-understand look at the Total Maximum Daily Load (TMDL) federal program to clean up impaired waterways. The full-length 45-minute program and a 25-minute version featuring nonpoint source pollution are both available.

SMSU OFFERS NEW MASTER OF SCIENCE

SMSU is now offering a brand new Master of Science in geospatial sciences. The program is designed to provide professional training in geospatial science in the areas of geography and environmental geology, such as remote sensing, hydrology, climatology, water quality, and watershed management. This program also offers a thesis and a non-thesis option. For more information contact the Department of Geography, Geology and Planning at 836-5801 or 836-5800.

STREAM TEAM RECEIVES RECOGNITION

The Springfield/Greene County Park Board's Stream Team - Kids F.A.C.E. (Kids For A Clean Environment) Programs recently received state-wide and national recognition.

Stream Team # 1732 headed up by Volunteer Lisa Orr in coordination with Melvin Johnson (Outdoor Initiatives & Youth Development Programs) was awarded the top Youth Leadership 2003 Team in Missouri in July.

The combined Stream Teams - Kids F.A.C.E. Programs received National "Cologate YOUTH FOR AMERICA HONORABLE MENTION" Community Service Recognition by the Colgate-Palmolive Company earlier this summer.

WHAT CAN YOU DO TO CLEAR THE AIR?

The air pollutant ozone is formed when two chemicals, nitrogen oxides (NOx) and Volatile Organic Compounds (VOCs), combine in the presence of sunlight. These pollutants are produced from the burning of fossil fuels such as coal and oil. Although the largest source of these pollutants is from single passenger vehicles, other sources include the production of electricity and use of small engines.

Try these simple steps to help clear our air...

- When you refuel, replace the gas tank cap tightly to prevent the escape of gasoline vapors from the fuel tank.
- Close your blinds and curtains on summer days.
 This will keep solar heat out and will act as additional insulation.
- For optimum comfort and energy conservation, use these recommended thermostat settings: winter 68 degrees F (day) and 55 degrees (F) night, summer 78 degrees F.
- Set your refrigerator temperatures correctly (if it's just 10 degrees F colder than necessary, you use 25% more energy.) The freezer should be between 0 and 5 degrees F; the refrigerator should be between 38 and 42 degrees F.
- Turn off lights and appliances in areas that aren't being used.
- Use compact fluorescent light bulbs in your light fixtures. Compact fluorescents use 75% less energy than incandescent bulbs and last ten times longer.
- Mow your lawn in the evening when mower emissions won't interact with heat and sunlight to create air pollution.
- Shade your air conditioner to save energy (direct sunlight will cause it to use up to 5% more.)

by Rebecca Cales, Bridging the Gap

CALCULATING PAINT NEEDS

Purchasing only the quantity needed saves money and avoids waste!

- 1. Calculate the total square feet to be painted:

 A. For each ceiling, multiply the length by
 - A. For each ceiling, multiply the length by the width:

Length ____ ft. x width ____ ft. = ___ sq. ft. B. For each wall, multiply the height by the width: Height ____ ft. x width ___ ft. = ___ sq. ft.

- 2. Calculate total sq. ft. for all walls and ceilings to be painted: A + B =____ total sq. ft.
- 3. To calculate the number of gallons of paint needed for one coat, divide the total sq. ft. by 400. This will equal the number of gallons of paint needed.

ENVIRONMENTAL TIP

Buy environmentally-friendly household cleaning products.
Or, make your own!
Most common household cleaners can be replicated by using baking soda, vinegar and borax.

Visit Bridging The Gap's website at www.bridgingthegap.org to request their "Power Shopping Guide" with specific instructions on household cleanersand handy environmental tips.

RECYCLING TIPS

The City of Springfield's "Guide to Recycling in Springfield" lists several businesses that where batteries are accepted for recycling. For more information, visit their web site at



www.springfieldmogov.org/recycling or call the City's Recycling Hotline at 864-1904.

Don't forget...after Halloween pumpkins and straw bales can be recycled at the City's Yardwaste Recycling Center. See the City's website or call the City's Recycling Hotline for information and directions.

Oil-based paint should not be placed in the trash because it is a liquid and because of the chemicals it contains. Springfield/Greene County citizens can bring left-over paint to the City's Household Chemical Collection Center. Call 864-2000 to make an appointment.

Water-based paints should not be placed in the trash because it is a liquid. Citizens may bring the paint to the City's Household Chemical Collection Center or they may simply "soak up" the liquid with materials such as cat litter, sawdust, etc. and then safely dispose of it in the household trash. A product called Bio-wash Waste Paint Hardener is available at Lowe's. A 3.5 ounce bag will harden 2/3 gallon of paint and costs about \$2.00. For more information, call the City's Recycling Hotline at 864-1904.

Got walnuts? Call the City's Recycling Hotline at 864-1904 for information about where to take walnuts or see the Hammon's Products Company web site at www.black-walnuts.com/hulling.asp for a collection location near you.

ENVIRONMENTAL TIP

Use sponges and cleaning rags instead of paper towels.

WHAT IS TCUSACAC?

The Tree City USA Citizens Advisory Committee (TCUSACAC) was originally established in 2001 on a temporary basis. Its purpose was to advise City Council and appropriate city departments regarding the City's trees and urban forest.

The committee helped accomplish renewal of the City's recognition as a Tree City USA community by the National Arbor Day Foundation and assisted in requalification of the City for Growth Awards in 2001, 2002 and 2003. The committee established the Springfield Tree City USA Fund, the Springfield Tree Registry and initiated the Springfield 5th Grade Arbor Day Poster Contest. The committee also officially endorsed the establishment of the "Community Tree and Landscaping Improvements" in the Capital Improvement Program and subsequent "NeighborWoods" Program.

In 2004, TCUSACAC received designation as a permanent 9-member advisory committee to Springfield City Council. The committee is continuing to work on the previously mentioned programs and is also now embarking on a review of the licensing requirements for tree care companies, as well as Springfield's tree ordinance as it pertains to the care and preservation of the City's trees. The committee meets on the third Thursday of each month and all meetings are open to the public.



The James River Basin Partnership has relocated to the SMSU campus. The Partnership's new address is 901 S. National, Monroe Hall Springfield, Mo 65804

ENVIRONMENTAL EXCELLENCE CHALLENGE

Big Cedar Lodge has led the way among a slowly growing number of businesses adopting environmentally friendly habits. Their state-of-the-art laundry system filters and recycles its final rinse water back into the room-sized washing "tunnel," saving 10,000 gallons of water a day. That water would otherwise go directly through the resort's wastewater treatment plant into the lake. The resort also encourages guests to recycle everything from paper cups to cans and even composts kitchen waste with manure from its riding stable.

The continuous batch washing system at Big Cedar allows a staff of as few as six employees to process 5,000 pounds of laundry a day. The laundry is loaded onto a conveyor belt where it moves through the five wash and rinse chambers of a 15-foot diameter cylinder. Water temperature, phosphate-free cleaning

agents and other processes are computer-controlled. Towels go into a six-foot diameter tumbler that can dry 200 pounds of towels in 18 minutes. The system is operated primarily by air pressure to save electricity. The final rinse water is filtered, the lint removed and recirculated to enter the first wash cycle. The system reflects Big Cedar's culture of environmental responsibility.

Dozens of Branson hotels, restaurants and other businesses have signed up for the Environmental Excellence Challenge since 1997, choosing from a list of sound practices and displaying their participation plaques for customers to see. Businesses choose from a list of water and solid-waste conservation options, including double-sided copying, elimination of paper or plastic glasses, bulk dispensers for condiments, donating used towels and blankets, serving drinking water only on demand, and giving guests the option to have sheets and towels changed less than daily.

NEW TRAFFIC SIGNAL LIGHTS

The City of Springfield, in partnership with City Utilities, has begun replacing incandescent traffic signal lights, changing them to light emitting diode (LED) lamps. A total of 5,426 traffic signal lights will be replaced in 136 intersections over a three-year period.

The LED signal lights will provide better visibility by directing up to 90% of all light toward motorists approaching the intersection. The LEDs also light faster than traditional incandescents, enhancing motorist safety even further. Because each signal indication consists of many individual LEDs, the light will still function as an LED fails, which sustains signal visibility as compared to the complete loss of a signal indication when an incandescent lamp burns out. A decrease in maintenance calls for burned out lights reduces the exposure of maintenance workers and lane closures, further reducing traffic delays.

Incandescent signal lights have a life expectancy of 8,000 hours (less than 1 year); the new LED signal lights have a life expectancy of 10 years. LED signal lights are also more resistant to vibration than traditional incandescents and will use only about 10% of the energy currently being consumed by the incandescent lights. After project completion, an estimated 1.8 million kilowatt-hours will be saved annually - enough to power 175 Springfield homes for a full year.

The cost of the LED signal lights will continue to decrease over time as energy prices are expected to increase - translating into greater overall future savings to the community.

ENVIRONMENTAL TIP:

Use energy efficient fluorescent or sodium light bulbs. Replace current outdoor lights with solar-powered lights.

CHOOSE ENVIRONMENTAL EXCELLENCE MEMBERS

BUSINESSES:

American Pasturage, Inc. Rick Hopkins Arbor Care of the Ozarks Kevin and Sandy Harrel **Arbor Management Service** Ellen McKenzie **Associated Electric** Wendy Myers The Bank Todd Parnell Bass Pro Shops Martin G. MacDonald Breezv Meadow Farms Darlene & Dave Wagner Butler, Rosenbury & Partners Miles Beach

Margaret Castrey & Assoc.
Margaret Castrey
Computer Recycling Center
Ken Reiss
Clairant LSM (Missouri), Inc.
Steve Hancock
Commercial Metals Company
Bob McCarty & Bill Yoast
Dayco Products, Inc.
Jon Schimpf
DomesticAide Home and
Office Cleaning, Inc.
Bob Dresner
ECO Fundraising
Sally Barritt

First Impressions Printing
Danny Correll
For the Love of Nature
Luinda L. Williams
The Forrester Group
Ray K. Forrester
Gregg Larsen
Landscaping, Inc.
Gregg Larsen
hci (Holland Chemical
International)
Midwest Environmental
Consultants, P.C.
Bill Lindsey

Nestle Purina Pet Care
Company
Elizabeth Aull
Salomon Smith Barney
Ann-Marie Shy
Southwestern Bell
Telephone
Pat Bly
3 M Springfield
Emily Crites
Watts Radiant
Birol Kilkis
Williams and Associates
Dalayna Williams

ORGANIZATIONS:

City of Springfield Barbara Lucks City Utilities of Springfield Dave Fraley Dickerson Park Zoo Mike Crocker **Discovery Center Greene County** Dave Coonrod **Greene County Local Emergency Planning** Committee Joey McElwee Habitat for Humanity Re-Store James River Basin Partnership Holly Neill

Master Gardeners of Southwest Missouri Gaylord Moore Missouri Department of Conservation - Southwest **Regional Office** Francis Skalicky Missouri Department of Conservation - Conservation Nature Center Linda Chorice Missouri Department of Natural Resources -Southwest Regional Office Bruce Martin **Natural Resources** Conservation Service Rita Mueller DeDe Vest

Ozark Greenways, Inc.
Terry Whaley
Ozark Mountain Paddlers
Rotary Club of Springfield Southeast
Sequiota School
Solid Waste Management
District Region "O"
Tim Smith
Southwest Mo. Cooperative
Marketing Association
Bobby Gregg
Springfield Area Chamber
of Commerce
Ryan Mooney

Springfield Convention and Visitors Bureau Tracy Kimberlin Springfield/Greene County League of Women Voters Study Middle School University Outreach and **Extension Office of** Waste Management Marie Steinwachs Upper White River Basin Foundation Floyd Gilzow **Watershed Committee** of the Ozarks Loring Bullard Wonders of Wildlife Amy Dooley

INDIVIDUALS:

Greg and Denise Bischof Mark Bishop Kerry and Brad Bodenhausen Marsha Boone Mr. and Mrs. Ernest Braswell Kevin Burgess Ann Carter Sally and Dean Carter Linda Chipperfield Tracy Christensen I. Neal and Jackie Cohen
Dave and Elisa Coonrod
Gary Deaver
Larry Demster
Art Elbert
Becky Fay
Cory Fearing
Jim and Caroline Grinder
Melida Gutierrez
Ann Hall

Tom Hembree
Karolyn Holdren
Drew Holt
Nancy Hopkins
Gary Johnson & Janet Rounce
Shae Johnson
Kevin S. Keppy
Birol I. Kilkis
Chuck Kroeger
Chris Landoll

Barbara J. Lucks
Judy and Paul McCune
Steve and Judy Meyer
Jeannie Moreno
Becky and Todd Parnell
Raymond Scaggs
Stephen D. Short
Lynette Weaver
Terry Whaley

Show-Me Yards & Neighborhoods Certified Lawn Care Professionals and Associates:

Advanced Lawn Care Co.
Affordable Lawn Care
All Service Lawn & Garden
Arbor Care of the Ozarks
Beautiful Days Landscaping
Bennett's LawnCare
Blade Runner
Bradfield Industries, Inc.
Caliber Lawn Service
City of Branson
City of Springfield Public
Works/Public Grounds
City of Springfield Public
Works
City Utilities of Springfield

Clark's Creative Landscaping
Cochran Lawn Care
Cutting Edge Lawn Care
Envirascapes
Galloway Greenscape LLC
Gardening with Nelda
Green Acres Lawn and
Landscape
Gregg Larsen
Landscaping, Inc.
JCB Enterprises
King Landscaping
Leisure Lawn Services
Mac's Lawn and Tree Care
Meadow Green of Springfield

Missouri Dept. of Agriculture Myron Royce Gardens **Natural Elements** Ozark Greenways, Inc. Ozark Native Plant Works, LLC P & D Lawn Stylists Professional Landscape Services Robinson Lawn Service **Short Grass** Southern Missouri Mulching, Inc. Southwest Missouri State University

Speedy Sharp and Lube Springfield/Greene County **Parks Department** Springfield Lawn and Yard Stan's Lawn Service Stine's Lawn Mowing Terrascapes Terry's Landscape The Grounds Keeper TruGreen ChemLawn University of Missouri -Rolla Vauble Construction Wolfe Lawn and Landscaping Zummo Agricultural Group

CALENDAR OF EVENTS

| | Monthly Trail Work Days (9 a.m noon) For details, call 417-864-2015 or access: www.ozarkgreenways.org |
|---------------|--|
| October 5 | Ward Branch Trail Ribbon Cutting For more information, call Ozark Greenways at 864-2015 |
| October 7-9 | Missouri Trail Summit: Dreaming, Building, Using and Managing - Columbia, MO |
| October 8-9 | Family Camping Weekend See article on page 12 for more information |
| October 16 | Cave/Outdoor Photography Clinic (9 a.m 12 Noon) Ages 11-Adult (Ages 9-10 with an Adult) - \$3/Individual For information call: 837-5808 |
| October 19 | "Environmental Compliance the WalMart Way" (Noon - 1:15 p.m.) Springfield Area Chamber of Commerce - R.S.V.P. online at: http://www.tibp.com/cgi-bin/foxweb.dll/wlx/cal/wlxprofile?caleid=423&cc=SPFDCC |
| October 22 | Missouri Hunter Safety Education (5:30 - 9:00 p.m.) Ages 11 - Adult / FREE Pre-Registration is required. Call 837-5808 |
| October 23 | Missouri Hunter Safety Education (8:30 a.m 6:00 p.m.) Ages 11 - Adult / FREE Pre-Registration is required. Call 837-5808 |
| October 26 | Missouri Department of Conservation Public Forum (7:00 p.m.) Bass Pro Shops, White River Room For more information, call 895-6881, Ext. 1046. |
| October 28 | Academy of Certified Hazardous Materials Managers - Regulatory Status Seminar Clarion Hotel, Springfield, MO Call Karen Schaefer @ (417) 831-5052 or Suzan Gonder @ (417) 890-9500 with questions |
| October 29-31 | Missouri Environmental Education Conference - Columbia, MO For more information, visit www.missouri.edu/%7Eesiwww/eecampus2004.html |
| November 3-5 | Groundwater Foundation Youth Groundwater Congress - Washington, D.C. |
| November 6 | Beginners Cave Clinic / Basic Cave Science & Get Muddy & Wet! (8:30 a.m 5:30 p.m.) Ages 11 - Adult (Ages 9-10 with an Adult) - \$10 / Individual |
| | Advance Registration Required - For more information, call 837-5808. Family Hikes & Hiking Club starting Fall 2004 For more information, call 837-5808. |
| | Wild Caving Experience coming this Winter at scenic Ha Ha Tonka State Park Ages 15 - Adult (Ages 11-14 with an Adult) For more information, call 837-5808. |
| November 13 | America Recycles Day Includes e-waste recycling at Lone Pine Recycling Center Treekeepers Class For more information, call Ozark Creenways at 864 2015 |
| November 20 | For more information, call Ozark Greenways at 864-2015 Festival of Lights Kick-off - Jordan Valley Park |
| | Missouri Environmental Education Summit |
| April 2, 2005 | Naturescaping Symposium - For more information, call 888-4237. |
| _ | Choose Environmental Excellence Awards Luncheon |
| - | Earth Day Observed in Springfield |
| 1 5, - 6 5 5 | St. John's Teddy Bear Rally - Dickerson Park Zoo |

http://www.ci.springfield.mo.us/community/cee_newsletter.html ...includes Directory of Environmental Service Organizations, CEE Newsletter, and links to other information.



Show-Me Yards & Neighborhoods Lawn Care Professionals Certification Program

The following companies, institutions, and organizations have completed the Show-Me Yards & Neighborhoods Lawn Care Professionals Certification Program and are committed to protecting the environment with their products and services and, further, are committed to educating their customers and members in the use of environmentally sound lawn care practices.



| Sprin | gfield |
|--------|--------|
| Greene | County |
| | |

| COMPANY | PHONE | CONTACT(S) |
|---|----------------|---------------------------------------|
| Advanced Lawn Care Co. | (417) 833-6575 | Carl Davis |
| Affordable Lawn Care | (417) 883-6179 | Rick Curtis |
| All Service Lawn & Garden | (417) 882-4543 | David Lowry |
| Arbor Care of the Ozarks | (417) 890-7776 | Kevin and Sandy Harrel |
| Beautiful Days Landscaping | (417) 886-7468 | Seth Entwisle |
| Bennett's LawnCare | (417) 732-7780 | Bruce Bennett |
| Blade Runner | (417) 882-9832 | Bruce Fuller |
| Bradfield Industrial, Inc. | (417) 882-1557 | Bob Scott |
| Caliber Lawn Service | (417) 863-1430 | Kevin Bowerman, Jeff Moore |
| City of Branson | (417) 337-8544 | Cheryl Verdeyen |
| City of Springfield Public Works/Public Grounds | (417) 864-1417 | Michael Leffler |
| City of Springfield Public Works | (417) 891-1660 | Mike Stafford |
| City Utilities of Springfield | (417) 831-8402 | David Wilkerson |
| Clark's Creative Landscaping | (417) 732-6653 | James (Mike) Clark |
| Cochran Lawn Care | (417) 881-5413 | Dennis Cochran |
| Cutting Edge Lawn Care | (417) 889-6574 | Saverio (Sal) Macaluso |
| Envirascapes | (417) 860-2486 | Konstantinos Savvenas |
| Galloway Greenscape LLC | (417) 887-9947 | Konstantinos Savvenas Keith Harris |
| Gardening with Nelda | (417) 887-9947 | Nelda Zehner |
| | , , | |
| Green Acres Lawn and Landscape | (417) 869-8636 | Ruth Crigger |
| Green Acres Lawn and Landscape | (417) 869-8636 | Robert and Karen Ford |
| Gregg Larsen Landscaping, Inc. | (417) 889-4285 | Gregg Larsen |
| JCB Enterprises | (417) 880-9449 | Jimmy C. Morris |
| King Landscaping | (417) 532-1622 | David King |
| Leisure Lawn Services | (417) 833-2717 | Russ Prichard |
| Mac's Lawn and Tree Care | (417) 848-7336 | Dennis McElderry |
| Meadow Green of Springfield | (417) 882-6286 | Nick Miller |
| Missouri Dept. of Agriculture | (573) 751-5511 | James Collins |
| Myron Royce Gardens | (417) 443-2648 | Michael Fesseden |
| Natural Elements | (417) 866-4901 | Tina Hymer |
| Ozark Greenways, Inc. | (417) 864-2015 | Terry Whaley |
| Ozark Native Plant Works, LLC | (417) 369-6102 | Frank Reynolds, Jr. |
| P & D Lawn Stylists | (417) 882-3060 | Daniel and Patricia Dulany |
| Professional Landscape Services | (417) 725-2203 | Greg R. Colboch |
| Robinson Lawn Service | (417) 865-9229 | Dennis M. Robinson |
| Short Grass | (417) 860-1899 | Jared Cooper |
| Southern Missouri Mulching, Inc. | (417) 831-6030 | Travis Gathman |
| Southwest Missouri State University | (417) 836-5963 | Richard T. Murphy, Jr., |
| Southwest Missouri State University | (417) 836-5963 | Chris Strodtman, Jeff Henry |
| Speedy Sharp & Lube | (417) 833-2717 | Russ Prichard |
| Springfield/Greene County Parks Dept. | (417) 864-1049 | Larry Smith, Richard Dutcher, |
| Springfield/Greene County Parks Dept. | (417) 864-1049 | Raymond Hymcik, David Brannon, |
| Springfield/Greene County Parks Dept. | (417) 864-1049 | Lou Campbell, Bill Fitzgerald, |
| Springfield/Greene County Parks Dept. | (417) 864-1049 | Josh Curnutt, Al Judycki, |
| Springfield/Greene County Parks Dept. | (417) 864-1049 | Matthew Lair |
| Springfield/Greene County Parks Dept. | (417) 353-6422 | Richard A. Mayer |
| Springfield Lawn and Yard | (417) 831-5041 | Joseph Bennett |
| Stan's Lawn Service | (417) 831-5444 | Leon Dugi III |
| Stine's Lawn Mowing | (417) 725-1636 | Carl Stine |
| Terrascapes | (417) 890-5901 | D. Michael Dressler |
| Terry's Landscape | (417) 833-1030 | Terry Brown |
| The Grounds Keeper | (417) 887-6054 | Steven Schmidt |
| The Grounds Reeper | (417) 869-2949 | Russell Scott Terrell |
| TruGreen ChemLawn | (417) 832-5661 | Shane Williams |
| University of Missouri-Rolla | (573) 341-4251 | Charles (Jim) Duncan |
| Vauble Construction | (417) 869-8713 | Larry Vauble |
| | (417) 863-8713 | Mark Wolfe |
| Wolfe Lawn and Landscaping | , , | |
| Zummo Agricultural Group | (417) 886-8568 | Richard Zummo |

~ Show-Me Yards & Neighborhoods is a project of Springfield/Greene County Choose Environmental Excellence ~

Funding Provided By:
Missouri Dept. of Natural Resources
City of Springfield/Public Works
Watershed Committee of the Ozarks
James River Basin Partnership

Technical Assistance Provided By:
Natural Resources Conservation Service
University of Missouri Outreach & Extension
Master Gardeners of Southwest Missouri
Ozarks Technical Community College
Turf & Landscape Management Program

Supporting Partners:
Greene County Resource Mgt.
City Utilities of Springfield
Southwest Missouri RC&D
Greene County Soil & Water
Conservation Service
League of Women Voters



🥌 Missouri Department of Natural Resources

Funded, in part, by a grant from US EPA under Section 319 of the Clean Water Act.

WASTE REDUCTION TIPS FOR SCHOOLS

- ⇒ Make double-sided copies whenever possible. This can dramatically reduce your paper usage.
- ⇒ Instead of making individual copies for everyone, use a routing slip when circulating information to staff, or post notices on a bulletin board.
- ⇒ Use reusable envelopes for interoffice mail. If applicable, use electronic mail instead of making hard copies of all communications.
- Arrange to have a vendor collect and recharge empty laser printer toner cartridges. Such cartridges can be recharged several times, saving money and reducing waste generation.
- ⇒ Encourage employees and students to reuse paper clips, rubber bands, and brass fasteners. These should be removed before recycling white office paper anyway.
- ⇒ Use scrap paper for messages. If you have access to a wax binder, you can make your own scrap notepads.
- ⇒ Require suppliers who deliver products on pallets or in metal drums to take them back.
- ⇒ Have your cafeteria switch to reusable utensils and crockery instead of throw-aways whenever possible. Investigate the possibility of switching to refillable containers for milk and juice.

Waste Reduction Tips, September 2003

WASTE REDUCTION AND REUSE IN THE OFFICE

- ⇒ Use both sides whenever possible and make double-sided copies.
- ⇒ Keep one-sided scrap paper for draft copies, informal notes or scratch paper.
- ⇒ Edit documents on the computer rather than printing draft copies.
- ⇒ Update mailing lists regularly to reduce waste mail.
- Use sticky notes or reusable transparencies to send faxes, instead of a full-page cover sheet.
- ⇒ Set up a storage/exchange area for reusable office supplies, such as envelopes, file folders, binders, shipping boxes and packing material.
- Rent, borrow or share equipment you use infrequently.
- ⇒ Purchase rechargeable batteries for employee's use in beepers, flashlights, calculators, etc.
- ⇒ Use a cloth-towel dispenser or hot-air dryer in the restroom.
- ⇒ For the kitchen area and catered events, use washable utensils, tableware and napkins; avoid disposable products such as paper towels and single-serving creamers and sugars.
- ⇒ If your office is large enough to have its own cafeteria, start a reusable mug program.
- ⇒ Give a discount on beverages if employees use their own mug.
- ⇔ Choose coffee vending machines that are for mugs as well as disposable cups.

~ Environmental Protection

Environmental Issues Business Forum

Join us for "Environmental Compliance the Wal-Mart Way" hosted by the Springfield Area Chamber of Commerce. Richard Pastor, QEP and director of environmental management with Wal-Mart Stores, Inc., will be on hand to discuss Wal-Mart's multidisciplinary compliance program and how they turn environmental issues into business opportunities.

Registration is \$10 per person and includes lunch.

To register online, visit: http://www.tibp.com/cgi-bin/foxweb.dll/wlx/cal/wlx-profile?caleid=423&cc=SPFDCC

ENVIRONMENTAL TIPS:

When purchasing trash bags, look for those that contain at least 20% post-consumer recycled content plastic.

When considering any purchases besides necessities, try the "30 Day Test." Wait 30 days and see if you still really need the item.

GREEN CATERING - GREEN WHAT?

You may ask what is meant by "Green Catering." It doesn't mean that the caterer only brings you salad to munch on during a business luncheon or event! Green catering focuses on waste reduction in preparing and presenting food.

According to the Grassroots Recycling Network, you can reduce the amount of waste by 75% if you just take time to ask your caterer some very simple questions:

- 1. Ask that all disposable utensils and dinnerware, as well as paper napkins, be eliminated as much as possible. Request durable, washable utensils and dinnerware and cloth napkins.
- 2. For a casual event, ask you caterer to serve sandwiches in cardboard containers or ask for individually prepared boxed lunches served in paperboard containers with paper napkins minus any plastic wraps or utensils. After the meal, simple remove any leftover food and napkins for composting and recycle the box.
- 3. You can request that the caterer bring washable trays for serving the food and then return the trays to the caterer once the event is over.
- 4. Ask how the drinks will be served. If cans of soda and bottles of water are provided, you can arrange to recycle the empty containers.

FAMILY CAMPING WEEKEND

Friday evening (after 3 PM) through 3 PM Saturday, October 8th - 9th, 2004 Ritter Springs Park, NW of Springfield

Come and enjoy the beautiful and scenic wonders of nature in the early fall at Ritter Springs Park.

Activities include Camping out overnight; canoeing, catch and release fishing; nature and exploring the many trails, streams, and wildlife of the Park; star gazing, craft projects, cooking out, games, and relaxed fun in nature. There are numerous picnic tables, but limited grills for cooking your own food near the camping area. Restrooms will be open; water available. No electricity or showers. Restricted to tents; and small campers, camping trailers, and RVs under 18 ft. without generators! Gates will be locked by dark Friday evening. Parking area limited to two vehicles per family. SPACE IS LIMITED!

REGISTER EARLY: Pre-Registration with payment required at the Northview Center (301 E. Talmage St) M-F, 8:30 a.m. - 4:30 p.m.; or by mail or fax (837-5905). Registration deadline is 4:30 p.m., October 6th, 2004. Registration is \$20.00/individual or family of up to five members. Maximum two tents per family, two campers per family, or 1-tent and 1-camper per family.

For more information, contact Melvin Johnson, Community Recreation Supervisor, at 837-5808.

CLEAN THE AIR BY KEEPING YOUR TRASH OUT OF CAMPFIRES

Camping is a great way for you to relax and enjoy fresh, clean air and the beauty of your surroundings. But is the air you are breathing really that clean? Not if you are burning your trash in your campfire.

When you burn trash in a campfire or in a burn barrel, the most visible by-product of the fire is the smoke. However, by-products that aren't as visible are of greater concern to our health and our environment. Chlorine-containing chemical compounds known as dioxins and furans are a serious threat to public and environmental health. These toxins are formed when some plastics, treated wood and wood products are burned at lower temperatures in such places as campfires, grills, burn barrels and outdoor fireplaces. In these low-temperature fires, there is less efficient combustion of the materials, allowing chemicals to form toxins instead of breaking down.

Although dioxins and furans cannot be seen by the naked eye, they can have drastic long-term effects on human health and the environment. These toxins have been shown to be carcinogenic (cancer-forming) and may also increase reproductive and developmental

problems, heart disease, diabetes and respiratory problems. Exposure to fire smoke containing dioxins and furans can also cause a skin rash called chloracne. In addition to being in the air, these toxins are also found in the soil, in water and in animals.

Protecting Missouri's Natural Resources July 2004

OZARK GREENWAYS TRAIL UPDATE

NEW! Upper Jordan Creek Greenway

Springfield Public Works will begin late summer or early fall on connecting Silver Springs Park to Smith Park with the new Upper Jordan Creek Greenway. The trail is being funded through storm water improvement funding, a TEA-21 grant and part of the /cent park sales tax. This section will be about one mile long and have an underpass at National Avenue.

South Creek Greenway

The project is underway to begin the Campbell Street underpass, with completion expected in September. Hartman Construction is building the culvert and trail from Campbell to Jefferson. Towe Construction is concreting existing trail and building a low-water bridge at Holland. The Park Board crew hopes to asphalt the current gravel trail section this fall.

In late summer it is hoped that trail will be added to partially close the gap south of Battlefield Road. This will be a 1/3-mile extension of the trail, running through the new Creekside Subdivision, closing almost have of the current trail gap there.

Frisco Highline Trail

Kennedy Contractors is working with the Ozark Greenways Technical Planning Committee to finalize the details of construction for 18 miles of trail from Walnut Grove to Bolivar. Antique railroad cars are being sought from a location in Arkansas to use as decking for three of the railroad bridges that burned in 1994.

Valley Water Mill & Fellows Lake Hiking Trails

These footpaths (no biking) are open to the public. The Watershed Committee's watershed learning center is developing next to the lake at Valley Water Mill.

Ward Branch Greenway

A mile of trail from Wanda Gray School to Rivercut is being constructed, aiming for an October ribbon-cutting.

South Dry Sac Greenway

Discussions are underway for an easement with developers, Jim and Libby Rodelander of Ashcroft Estates in north Springfield. This trail is planned to eventually tie into the planned Lost Hill park.



www.ozarkgreenways.org

PARK BOARD ANNOUNCES OUTDOOR INITIATIVES & YOUTH DEVELOPMENT PROGRAMS

Mission: The Springfield/Greene County Park Board is committed to provide the highest quality of leisure opportunities, to offer programs for relaxation as well as stimulation, and to encourage personal and community enrichment for the citizens of Springfield, Missouri.

The Outdoor Initiatives and Youth Development Programs' Office is located in the Northview Center in Doling Park.

Programs are available year-round, depending upon the specific activity. While on-site hands-on programs such as utilizing the Outdoor - Underground Classroom results in the best quality experience; Staff are available for presentations and programs at your site as well.

Proram areas include:

- ◆ ADVENTURE CAMPING: Backpacking, Camp Challenge Day - Trip Camps, Family Camping, Leadership Camp, and Ritter Springs Day Camp.
- CAVE SCIENCE & EXPLORING: Beginners and Intermediate Hands-On Clinics.
- ◆ CHALLENGE INITIATIVES: Confidence and Team Building Dynamics.
- ◆ DUTCH OVEN COOKING & OUTDOOR COOKING
- ◆ ENVIRONMENTAL EDUCATION & NATURE STUDY
- **+ HUNTER SAFETY EDUCATION**
- ♠ KIDS F.A.C.E. (Kids For A Clean Environment) NATIONAL PROGRAM
- **♦** MARKSMANSHIP SAFETY & TURKEY SHOOTS
- ◆ OUTDOOR UNDERGROUND CLASSROOM
- OUTDOOR SAFETY
- ◆ PHOTOGRAPY: Youth Beginners and Cave Photography.
- ◆ STREAM STUDY/STREAM TEAM APPROACH
- **◆ TREE & PLANT IDENTIFICATION**

Age/Grade levels for the programs are: Ages 3 through Adults, depending upon specific program. Some programs complement the Show-Me Standards for grades K-12.

Small groups are best for a quality hands-on experience and may be mandated as in the case with "River Cave" where the group size is limited to nine participants. A walk-through of Doling's Outdoor - Underground Classroom is limited to a maximum of 15 to 20 participants, while exploring the tunnels is restricted to a maximum of 12 to 15.

Student/Adult Ratio:

One adult supervisor for each 5 youth under the age of 6.

One adult supervisor for each 10 youth ages 6-11. One adult supervisor for each 12-15 teenagers.

Fees range from \$1 to \$140/participant depending upon specific program, i.e., Cave Sessions range from \$1 to \$15; Day Camps from \$65 to \$75; Trip Camps from \$33 to \$140.

For additional information, contact Melvin Johnson, CPRP Recreation Supervisor, Outdoor Initiatives and Youth Development Programs.

(417) 837-5907 (417) 837-5905 - fax E-mail: mjohnson@ci.springfield.mo.us outdoorinitiatives@yahoo.com

VERMICOMPOSTING

Breezy Meadows Farms, owned and operated by Darlene Wagner, began operation in May 2003 and is involved in Vermiculture (raising and management of earthworms) and Vermicomposting (composting with worms.)

The vermicomposting worms at BMR are commonly known as "red wigglers," the finest composting worm. These red wigglers recycle washed and filtered dairy cattle manure into nutrient rich, naturally organic, odor-free worm castings, which, when used as a soil amendment by gardeners and fruit and vegetable growers, enhances plant growth, soil structure and aeration, water retention, acts as an organic insect repellant and resists soil compaction, promoting plant and root development. The method of vermicompsting at BMF is one form of completing the recycling loop in an organic process.

Another form of vermicomposting accomplished with red wigglers consuming food waste. This method of composting not only teaches us to be responsible recyclers of waste material, reducing space stress on our landfills, but also produces compost with the organic qualities and benefits as stated earlier. This method of composting should be practiced in our homes, office buildings, hospitals, military bases, penal systems....anywhere there is food waste.

The worm castings are used in floral gardens, herb beds and vegetable gardens, with dramatic results and the recycling of naturally organic materials begins another loop process. The worm castings are also used to make "Worm-Tea," which is an excellent way to stimulate healthy and bountiful plants and vegetables. Worm-Tea is a wonderful organic pesticide also, as microorganisms found in worm casting stimulate organisms in plants that work as natural insect repellants.

Breezy Meadow Farms has available for purchase: Earthworm Castings and Composting Worms (in bulk or in smaller quantities)...all, of course, naturally organic. Pricing is quoted by quantity. Call 862-9795 or 869-4210 for more information.

How to Be a "Greener" Computer User

"Greener" computing is about getting the most out of your computer while minimizing environmental effects and maximizing cost savings. The following tips are offered to help you make your computer purchases, use and disposal more environmentally friendly.

Select your computer wisely

Buy a computer that grows with you. Learning how to buy the right system for your specific needs is the first crucial step in making sure your computer will be growing with you for many years to come. Shop smartly and you can maximize the work (and play) you'll accomplish with your computer.

Buy refurbished products. Many computer manufacturers and resellers offer refurbished computer systems and parts. Refurbished computers and peripherals can offer substantial savings while benefiting the environment. Some refurbished computers are backed with a warranty and technical support.

Consider the environment. Most computers are being designed to reduce the negative effects of manufacturing and use. For example, Energy Star-compliant computers and monitors have been designed to reduce energy use when idle. Other environmental features such as recyclability, a modular, upgradable design and online user manuals and documentation should be considered when choosing a computer system.

Packaging is important. Computers and their components are sophisticated and precise products requiring maximum protection from drops, vibration and temperature variations that can occur during shipping and handling. Find out what various retailers and manufacturers are doing to reduce unnecessary packaging before you spend your money with them.

Get the most out of your computer

Turn it off. Computers are designed so that frequent shut downs will not significantly affect them. In fact, turning off a system saves energy and may prolong the life of your computer. Remember to always turn off your monitor at night and when not in use. Even if you have power management enabled for your monitor, leaving a monitor on all night uses significant electricity. If you need to leave your computer running for the day, get into the habit of turning off your monitor when you are in meetings or at lunch.

Enable power management. Look for power management features on your desktop or notebook to minimize energy use. These features enable the computer to go into low-power mode when not in use, which can save a significant amount of energy.

Skip the screen saver. Active, moving screen savers don't save any energy. Screen savers were initially

designed to save the phosphorescent coating inside monochrome monitors, but this type of monitor is rarely used today.

Be a smart printer. You can also reduce the environmental effects of printing with your computer. Consider editing documents on your computer and use the clean side of used paper for printing drafts. You can also purchase environmentally friendly printers, toner cartridges and paper.

Extend your computer's life

Donate it. When you are finished using your computer consider donating it to a nonprofit organization. While you may have outgrown its features, an organization that cannot afford technology may be able to use it for years to come.

Reuse components. Your monitor, keyboard and mouse can be reused with a new computer. Make sure your next computer is compatible with these components or consider donating them.

Recycle it. If you are not planning to donate your used computer, consider recycling it in an environmentally responsible manner. Almost all of the elements in a computer can be recycled and reused in the manufacture of new machines. Look for a recycler in your area and consider using one that follows EPA guidelines.

~ Environmental Protection

QUESTIONS FOR A COMPUTER RECYCLER

What type of certification is available to document that the equipment was properly recycled?

Does the firm have necessary state and local permits?

How does the facility manage the used computer equipment and electronic equipment and waste?

Does the firm have contracts with foundries and scrap dealers for its metals, or with precious-metal refiners for its circuit boards? Has the company completed an environmental audit of these facilities?

What is the firm's program for dealing with cathode ray tubes?

Can the firm track the material that it processes?

Does the firm have sufficient liability insurance coverage?

Does the firm have a hazard communication plan, worker safety training program and right to know training program?

RENEWABLE ENERGY PROJECT - 1 YEAR OLD

The Renewable Energy Project by City Utilities celebrated its first year of operation this past summer.

Since the installation of the wind turbine and solar panels in the summer of 2003, the site at the TecHouse (2655 S. Blackman Road) has seen many visitors and has provided CU and the Missouri Department of Natural Resources very useful information.

The 10kW wind turbine has had less than expected energy output - only producing 3,809 kWh by the end of July 2004. This relates to a capacity factor of less than four percent while the expected performance was 15-20%. Producing just over 9 kWh per day averages to approximately one third of the total electric usage for a residential home in Springfield. At the cost of \$88,000 for installation, this relates to a payback of over 400 years - or about \$1.26 per kWh on a 20-year lifecycle.

The average CU residential customer in 2003 used 10,716kWh's at a cost of \$572.

However, the two 2.2kW solar panels have been performing near expected levels. One of the solar panels is in a fixed position while the other tracks with the sun. As expected, the tracking solar panel has produced more than the fixed, 5,213 kWh versus 5,094 kWh at the end of July 2004. The cost of the installation was \$42,000, which equates to a payback of over 100 years - or about \$0.30 per kWh on a 20-year lifecycle.

The electricity produced from the wind turbine and solar panels is passed through an inverter to synchronize it to CU's existing power supply. From there the energy passes through a meter so it can be measured. All of this data can be viewed on the CU website, www.cityutilities.net.

Although this has proven not to be a reliable or affordable energy option at this time, CU will continue to study renewable energy technology to find ways to optimize it for customers in the future. For more information or to schedule a tour of the Renewable Energy Project, call 831-8348.

STAYING WARM THIS WINTER MAY COST MORE

Natural Gas prices are on the rise throughout the nation. As a result, utility customers should anticipate higher utility bills during this winter heating season.

At City Utilities the cost for purchased natural gas is passed directly through to customers. A charge for transporting the natural gas and a customer charge are also added to each bill.

What can you do? There are steps CU customers can take now to prepare for a cold winter and to soften the impact of higher natural gas costs.

There are many low-cost and no-cost things you can do to keep your energy usage under control (see last page of newsletter.)

Get a Home Sense Energy Audit

A Home Sense Energy Audit will show where energy is being lost and suggest ways to reduce energy and water usage without losing comfort. In addition to pinpointing air leaks with a blower-door test and providing a list of cost-effective retrofit measures, the customer will receive an insulation blanket for the water heater, a kitchen faucet aerator, a high-efficiency showerhead and a high-efficiency compact fluorescent bulb. Because this is such an effective tool, City Utilities splits the cost of the \$200 audit with the customer and the \$100 customer's cost can be divided into 4 equal installments and conveniently added to the utility bill. Call today to schedule an appointment at 831-8348 or email EnergyAdvisor@cityutilities.net. The audit is limited to CU customers.

CU's Interactive Energy Audits provide a personalized report of energy usage for both your home and business at no cost to you. All it takes is a little of your time to answer questions about your home or business, appliances, and energy consumption. A detailed analysis will provide graphs and charts of your usage, along with anticipated costs and savings when you implement the recommendations.

"It's In Your Power" Free Video Offer

CU offers customers a free energy management video to help you learn ways to reduce your energy costs. Call our product request line at 874-8255 to order your video today.



ENVIRONMENTAL TIPS:

Install a programmable thermostate for a comfortable and convenient way to adjust temperature based on time of day.

Check the air filter on your furnace and replace it or clean it (if it's permanent).

A clogged filter will use 5% more energy.

Plug the hole in the wall behind your thermostat with a piece of insulation - this will hep it give a better reading.

Tighten and insulate your heating ducts. This can save up to 10% on your heating costs.

Springfield-Greene County Choose Environmental Excellence 417-864-2006



Environmental Excellence

Springfield-Greene County Choose Environmental Excellence Steering Committee

Barbara Lucks City of Springfield

Solid Waste Management Division

Kevin Gipson

Springfield-Greene County Health Dept.

Marie Steinwachs

University of Missouri Outreach and Extension

Ryan Mooney Springfield Area

Chamber of Commerce

Terry Whaley

Ozark Greenways, Inc.
Emily Fox

The Discovery Center

Chuck Kroeger Southwest Missouri State University

Dave Fraley City Utilities

Dave Coonrod Greene County

Presiding Commissioner

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Cindy Garner Missouri Dept. of Conservation

Francis Skalicky Missouri Dept. of Conservation

DeDe Vest Natural Resources Conservation Service

Jon Schimpf Dayco

Holly Neill James River Basin Partnership

Becky Fay University of Missouri Outreach and Extension

Tim Smith Greene County Resource Management

Randy Lyman City of Springfield Sanitary Services

Bob Hamilton Solid Waste Management District "O"

Karl Barke Springfield-Greene County Health Dept. - Air Quality Control

Gary Deaver Rená Bass Lynn Feagan

ABOUT SPRINGFIELD/GREENE COUNTY CHOOSE ENVIRONMENTAL EXCELLENCE

Choose Environmental Excellence! A simple statement, a declaration, a command or just a reminder that we all have this great power to choose. The simple choices that we make every day can and do make a difference - especially when they are joined by thousands of Missourians throughout the state. This is the underlying premise of Missouri's Choose Environmental Excellence campaign, which was formally launched with a proclamation from Governor Carnahan on Earth Day, April 22, 1998.

Patterned after the highly successful Environmental Excellence Campaigns which began in Kansas City in 1994, *Choose Environmental Excellence* is a partnership of business, government, and private citizens all acting together to improve our environmental awareness and actions in the daily choices we make. Each participant is asked to make a simple commitment to do a better job. Whether the issue is air quality, waste disposal, groundwater contamination or hazardous waste, the underlying environmental problems are created by all of us: individuals, businesses/organizations, and governments. We voluntarily create these problems through our daily choices, and if change is to occur, we must also choose to solve them.

Choose Environmental Excellence asks for personal commitments and then provides support through workshops, newsletters, and technical materials. Wherever possible, Choose Environmental Excellence seeks out the good work people are doing, recognizes it, and encourages positive models for others in the community.

With funding provided by EIERA through a Missouri Market Development Program, *Choose Environmental Excellence* is available at no charge to local communities throughout the state. It is a real partnership with leadership from the environmental, business, and government communities. The Missouri EIERA Market Development Program and Bridging the Gap, Inc., with the Missouri Department of Natural Resources, constitute the initiating partners in this statewide effort.

Springfield/Greene County's *Choose Environmental Excellence* is a partnership including local environmental organizations, city and county governments and agencies, businesses, civic organizations and individuals. We're all in this together. The simple choices we make every day can and do change the world. You, too, can make a difference...

Choose Environmental Excellence!

CHOOSE ENVIRONMENTAL EXCELLENCE ...<u>You</u> can make a difference!

Choose Environmental Excellence! A simple statement, a declaration, a command, a reminder that we all have this great power to choose. The simple choices that we make every day can and do make a difference--especially when we premise of Missouri's Choose Environmental Excellence campaign, which are joined by thousands of Missourians throughout the state. This is the underlying was formally launched with a proclamation from the Governor on Earth Day, April 22, 1998.

technical materials. Whenever possible, Choose Environmental Excellence seeks natural beauty and citizens who treasure that beauty. Working together, we do make a difference. Choose Environmental Excellence asks for personal Springfield/Greene County is a unique, environmentally fragile area, blessed with commitments and then provides support through workshops, newsletters, and to showcase the good work people and organizations are doing, recognizes it, and encourages positive models for others in our community.

Excellence helps you along the way! The program provides information to participants through Simple Steps, newsletters, workshops and forums. These It's free and easy to participate. Simply make a commitment to begin and continue to take simple steps to help the environment and Choose Environmental discussions give participants the opportunity to learn from the success of others. Finally, Choose Environmental Excellence provides incentives for participants to make meaningful and continual progress in their environmental programs through annual Environmental Excellence Awards at both the local and state levels.

really make a difference. To join, just fill in the pledge card below and drop it in Environmental Excellence is a matter of choice. You can take simple steps that

Choose Environmental Excellence Springfield, MO 65801 PO Box 8368

YES! We Choose Environmental Excellence. We support efforts to non-profit organizations and government make wise choices to improve provide information and resources to help businesses, individuals, our environment.

| Name: | Mailing Address: | City/Zip: |
|-------|------------------|-----------|

CHOOSE ENVIRONMENTAL EXCELLENCE ...<u>You</u> can make a difference!

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Choose Environmental Excellence Springfield, MO 65801 PO Box 8368

YES! We Choose Environmental Excellence. We support efforts to non-profit organizations and government make wise choices to improve provide information and resources to help businesses, individuals, our environment.

| Name: | Natifie:_ |
|-------------------|-------------------|
| Aailing Address: | Mailing Address: |
| City/Zip: | City/Zip: |
| Phone/Fax/E-Mail: | Phone/Fax/E-Mail: |

CONGRATULATIONS

TO THE WATERSHED COMMITTEE OF THE OZARKS

20TH ANNIVERSARY YEAR

